

AMENDMENTS TO THE CLAIMS

1. (cancelled)

2- (Currently amended) A composite product comprised of a layer of polystyrene structural plastic having a 0.1 to about 2.5 mm thin protective layer comprising of a blend of an acrylic ester polymer and acrylic polymeric additive.

3- (Currently amended) A process for producing a composite of a polystyrene structural plastic and a 0.1 to about 2.5 mm thin protective layer, the process comprises joining a molten stream of polystyrene structural plastic and a molten stream of a blend of an acrylic ester polymer and an acrylic polymeric additive in an extruder discharge conduit to form a single stratified stream of molten material conforming to the cross-section of the conduit and having a relatively sharply defined interface between the structural plastic and the blend, and thereafter passing the stratified stream through a sheet-form extrusion die having its die lips generally aligned with the foregoing interface.

4- (Currently amended) ~~An acrylic resin capstock composition~~ The composite product of claim 2 wherein said thin protective layer is comprised of:

- a) 10 - 95% polymethyl methacrylate or an C₁-C₆ alkyl methacrylate/C₁-C₈ alkyl acrylate copolymer matrix
- b) 0 - 60% modifiers; and
- c) 5 - 40 % acrylic polymer additive which is comprised of
 - 5 - 90 % methyl methacrylate,
 - 10 - 95% C₂-C₆ alkyl methacrylate and
 - 0 - 15% methacrylic acid, acrylic acid or C₁-C₅ esters thereof.

5- (Original) The capstock composition of Claim 4 wherein the acrylic polymer additive is comprised of 20-80% methyl methacrylate and 20-80% butyl methacrylate and has a molecular weight from 40,000-300,000.

6- (Original) The capstock composition of Claim 5 wherein the acrylic polymer additive is comprised of 50- 80% methyl methacrylate and 20-50% butyl methacrylate and has a molecular weight from 40,000-100,000.

7- (Previously presented) A co-extruded product comprised of two layers
(a) a first layer comprised of polystyrene structural plastic and
(b) a second layer comprised of
(i) methyl methacrylate resin, and
(ii) an acrylic polymer additive that increases the adhesive strength between the layers.

8- (Previously presented) The product of Claim 7 wherein the polystyrene structural plastic is a copolymer of acrylonitrile/butadiene/styrene.

9- (Previously presented) The product of Claim 7 wherein the polystyrene is high impact polystyrene or crystalline polystyrene.

10- (Original) The product of claim 7 wherein the acrylic polymer additive is a polymer comprised of:

- (a) 5-90 wt% methyl methacrylate,
- (b) 10-95 wt% C₂-C₆ alkyl methacrylate, and
- (c) 0-15 wt% methacrylic acid, acrylic acid or C₁-C₅ esters thereof.

11- (Original) The product of claim 10 wherein the acrylic polymer additive is a polymer having monomer units of methyl methacrylate, butyl methacrylate and optionally methacrylic acid.

12- (Original) The product of claim 11 wherein ratio of the monomer units is
(a) 20 to 80 wt% methyl methacrylate,
(b) 20 to 80 wt% butyl methacrylate and

(c) 0 to 10 wt% methacrylic acid.

13- (Original) The product of claim 12 wherein ratio of the monomer units is (a) 50 to 80 wt% methyl methacrylate,

(b) 20 to 50 wt% butyl methacrylate and

(c) 0 to 10 wt% methacrylic acid.

14- (Original) The product of Claim 7 wherein the second layer is comprised of

(i) 60 to 95 wt % of methylmethacrylate resin and

(ii) 5 to 40 wt % of the acrylic polymer additive.

15- (Original) The product of Claim 7 wherein the first layer contains pigments, dyes, fillers, PS, acrylic and HIPS rework, different grades of HIPS.

16- (Original) A co-extruded product comprised of two layers

(A) 50 to 95 wt % being a first layer comprised of high impact polystyrene, and

(B) 5 to 50 wt % being a second layer being comprised of

(i) 60 to 95 wt % of an acrylate resin, and

(ii) 5 to 40 wt % of an acrylic polymer additive which is copolymer or terpolymer that increases the adhesive strength between the layers.

17- (Original) The product of Claim 16 wherein the acrylic polymer additive is a 50- 80% methyl methacrylate and 20-50% butyl methacrylate polymer having a molecular weight from 40,000-300,000.

18- (Original) The product of Claim 16 wherein the acrylic polymer additive is a 20-50 % methyl methacrylate and 50-80% butyl methacrylate having a molecular weight from 40,000-300,000, preferably 40,000-100,000.

19- (Previously presented) A composite for use in sanitary applications, appliance housings, appliance liners, appliance doors, building doors, window trim, shutters, automotive parts or farm equipment wherein said composite comprises a polystyrene structural plastic and acrylic composition capstock, the composite formed by feedblock coextrusion, wherein the acrylic composition is comprised of a blend of an acrylic ester polymer and acrylic polymeric additive.
